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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,128	09/10/2004	Patrizia Melpignano	APV31817	8838

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EXAMINER

SEMBER, THOMAS M

ART UNIT	PAPER NUMBER
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2885

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/507,128

Applicant(s)

MELPIGNANO ET AL.

Examiner

Thomas M. Sember

Art Unit

2885

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-12, 17-18 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over C.F. MADIGAN ET AL, Improvement of output coupling efficiency of organic light-emitting diodes by backside substrate modification, Applied Physics Letters, March 27, 2000, at 1650 (published article) and BRASS ET AL. (US 6,979,104). MADIGAN discloses a lighting device (Fig. 3 generally) comprising:

- An OLED/light source with positive and negative electrodes having point of light emission pixels between said electrodes (Fig. 3);
- A partly transparent substrate for diffusing OLED light (Fig. 3);
- A lenticular optical element/lens array on the substrate opposite to the OLED for diffusing light comprising a plurality of diffractive microlenses on a second face of said substrate to form an integrated structure to generate, emit and direct light (Fig. 3);
- Wherein the microlenses are equal to each other (Fig. 3);
- Wherein the substrate is made of plastic or glass (Table 1); and
- Wherein the microlenses centers are shifted with respect to the relative point of light emission/the other of the mail axes (Page 1652, Column 2, Paragraph 3).

2. While MADIGAN substantially discloses the claimed invention including an OLED, MADIGAN does not appear to disclose a light source with its optical axis laterally shifted from the central axis of a lens or lenses of different geometric configurations. However, BRASS teaches such (Figs. 11 and 18) for the purpose of yielding a beam with increased focus (Column 12, Line 62-Column 13, Line 14). It would have been obvious to one of ordinary skill in the art at the time of invention to modify MADIGAN and use the laterally offset light as taught by BRASS in order to obtain a beam with increased focus. BRASS further teaches lenses of different geometric configurations, i.e. different sizes (115, 117, Fig. 1). Notably, a change of any spatial attribute is considered a change of geometric configuration. Moreover, it has been held that a mere change of form or rearrangement of parts is necessary for patentability with such a change resulting in more than useful natural phenomenon that man has accumulated through common knowledge. Span Deck Inc. v. Fab Con, Inc., 215 USPQ 835. Thus, it would have been obvious to one having ordinary skill in the art to manipulate the lens configuration of MADIGAN in order to achieve a desired effect.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7 and 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over C.F. MADIGAN ET AL, Improvement of output coupling efficiency of organic light-emitting diodes by backside substrate modification, Applied Physics Letters, March 27, 2000, at 1650 (published article) and BRASS ET AL. (US 6,979,104) as applied in claims 1-5, 8-12, 17-18 and 24-27. C.F. MADIGAN ET AL, Improvement of output coupling efficiency of organic light-emitting diodes by backside substrate modification, Applied Physics Letters, March 27, 2000, at 1650 (published article) and BRASS ET AL. (US 6,979,104) as applied in claims 1-5, 8-12, 17-18 and 24-27 discloses a lighting device (Fig. 3 generally) comprising: discloses the claimed invention including microlenses on a substrate (Fig. 3), but does not disclose microlenses or a substrate sized as claimed by applicant. However, it would have been obvious to one having ordinary skill in the art at the time of invention to decrease the size of the MADIGAN light device to lower material costs and decrease material processing time thus increasing process efficiency, since such a modification would have involved a mere change in the size of the existing components. Notably, changes in size are generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-16 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over C.F. MADIGAN ET AL, Improvement of output coupling efficiency of organic light-emitting diodes by backside substrate modification, Applied Physics Letters, March 27, 2000, at 1650 (published article) and BRASS ET AL. (US 6,979,104) as applied in claims 1-5, 8-12, 17-18 and 24-27. C.F. MADIGAN ET AL, Improvement of output coupling efficiency of organic light-emitting diodes by backside substrate modification, Applied Physics Letters, March 27, 2000, at 1650 (published article) and BRASS ET AL. (US 6,979,104) as applied in Claims 1-5, 8-12, 17-18 and 24-27 discloses the claimed invention except for the teaching of the specific molding processes. It would have been obvious to one having ordinary skill in the art at the time of invention to make the lens substrate by way off a hot, cold, nickel molded, hot embossing or molding process before or after the substrate is associated with light source, since such molding processes are known in the optics art and merely using a different process to make the same lens would generally be recognized as being within the level of ordinary skill in the art.

Response to Arguments

4. Applicant's arguments filed on 01/25/07 have been fully considered but they are not persuasive. Firstly, the applicant argues that because the lenses of BRASS is moveable and/or used to focus on a target area, the MADIGAN-BRASS combination does not read on the claimed invention. However, BRASS is only employed to evidence

the obviousness of providing a light source with its optical axis laterally shifted from the central axis of a lens in order to manipulate and direct light as desired. Whether the BRASS lens is moveable or not is not relevant because the reference of MADIGAN teaches molding the lenses on the substrate.

Secondly, In response to applicant's argument that that MADIGAN and BRASS involve different technological fields and are therefore nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, MADIGAN and BRASS are both from the same field of endeavor, backlit lens using a lens to focus or manipulate light and BRASS is merely combined with MADIGAN to teach the deficiency of MADIGAN, which is the laterally shifting of the lens to manipulate light as desired as taught by BRASS.

Thirdly, the applicant argues that the distance between the lens and optical sources are very different in the present invention as compared to BRASS. It is noted that the features upon which applicant relies (i.e., the precise distance between the lens and optical sources) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, the Examiner notes that BRASS is not utilized to demonstrate the obviousness of size or distances, but is instead utilized to demonstrate the obviousness

of providing a light source with its optical axis laterally shifted from the central axis of a lens in order to manipulate and direct light as desired.

Fourthly, Applicant asserts that the fundamental combination of MADIGAN and BRASS is flawed. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, MADIGAN and BRASS are both from the same field of endeavor, backlit lens using a lens to focus or manipulate light and BRASS in merely combined with MADIGAN to teach the deficiency of MADIGAN, which is the laterally shifting of the lens to manipulate light as desired as taught by BRASS.. Examiner respectfully disagrees since BRASS clearly teaches the deficiency of MADIGAN, i.e. the laterally shifting of the lens to manipulate light as desired.

Applicant presents a number of arguments in regard to Claims 6, 7, 22 and 23. Since the claims depend from Claim 1, they are rejected by the references applied to claim 1, i.e. MADIGAN and BRASS. Applicant argues that the values of the claimed invention are significantly lower than measurements of MADIGAN and that reducing the size of a microlens requires reducing the size of a light source (OLED diameter). Examiner respectfully submits that this concept is notoriously known in the art. Not only

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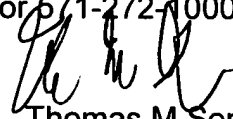
are changes of size, i.e. mere scaling up [down] or a prior art process well within the skill level of one having ordinary skill in the art, but discovering the optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 205 USPQ 215. . Applicant argues that the method claims should be afforded patentable weight. The examiner agrees. However, Examiner notes that the device formed by these method claims are rejected by MADIGAN and BRASS.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M. Sember whose telephone number is 571-272-2381. The examiner can normally be reached on M-F 9 a.m.- 5.30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thomas M Sember
Primary Examiner
Art Unit 2885